5. All records required under this permit shall be kept for a period of at least five (5) years and shall be made available to the Division upon request.

6. Periodic training on the proper operation of equipment, systems and devices used to contain, control, eliminate or reduce pollution shall be provided to company personnel whose primary job is to regularly ensure that facility production equipment is functional. The training shall provide these personnel with the ability to recognize, correct and report all instances of malfunctioning equipment, systems and devices associated with air pollution control. These equipment, systems and devices include, but are not limited to combustion units, reboiler overheads condensers, hydrocarbons liquids storage tanks, drip tanks, vent lines, connectors, fittings, valves, relief valves, hatches and any other appurtenance employed to, or involved with, eliminating, reducing, containing or collecting vapors and transporting them to a pollution control system or device.

7. Jonah Energy LLC shall implement an Enhanced Directed Inspection and Maintenance (EDI&M) program at the Stud Horse Butte 84-9 Central Facility in accordance with the most recent version of the Jonah Energy LLC EDI&M program plan, attached as Appendix A. Compliance with the EDI&M program plan constitutes a demonstration of compliance with permit conditions related to fugitive emissions from leaking equipment.

8. The EDI&M program plan may be revised administratively without reopening the permit. Revised EDI&M program plans shall be approved by the Division prior to implementation.

9. Results of all inspections, evaluations and periodic monitoring shall be documented and maintained for review by the Division upon request.

10. Vapors from all condensate tanks and all active produced water tanks, including flashing and S/W/B losses, shall be routed to the common combustion devices to reduce the mass content of total HAP and VOC emissions in the tank vapors by at least ninety-eight percent (98%) by weight.

11. For the TEG dehydration units with condensers, reboiler still vent vapors shall be routed to the condensers. Condensed reboiler still vent liquids shall be collected and routed to a liquids storage tank. The non-condensable reboiler still vent vapors and glycol flash separator vapors shall be routed to the common combustion devices. The condensers and common combustion devices shall reduce the mass content of total HAP and VOC emissions in the reboiler still vent and glycol flash separator vapors by at least ninety-eight percent (98%) by weight.

12. The motive gas discharge line on each pneumatic pump shall be routed into a fuel gas supply line or any gas or liquid collection line which is ultimately routed into a closed system or emission control system or each pump shall be replaced with an electric, solar or air-operated pump or other device in order to reduce VOC emissions associated with the pump discharge gas stream by at least ninety-eight percent (98%) by weight.

13. All natural gas-operated pneumatic process controllers (temperature control, pressure control, level control, flow control, etc.) shall be low or no-bleed controllers, with low bleed defined as less than six (6) cubic feet per hour vent or bleed rate, or the controller discharge streams shall be routed into a closed loop system so there are no volatile organic compound or hazardous air pollutants emitted to the atmosphere.

14. The presence of the combustion device pilot flames shall be monitored using thermocouples and continuous recording devices or any other equivalent devices to detect and record the presence of the flames. Records shall be maintained noting periods during active well site operation when any of the pilot flames are not present. The records shall contain a description of the reason(s) for absence of the pilot flames and steps taken to return the pilot flames to proper operation.

15. Emission control equipment, including the VOC and HAP emission control systems or devices, reboiler overheads condensers and all vent lines, connections, fittings, valves, relief valves, hatches or any other appurtenance employed to contain and collect vapors and transport them to the emission control system or device, shall be maintained and operated during any time the wells are producing such that the emissions are controlled at all times. Records shall be maintained noting dates and durations of times during such operation when any VOC or HAP emissions control system or device or the associated containment and collection equipment is not functioning to control emissions as required by this permit.

16. All combustion devices shall be designed, constructed, operated and maintained to be smokeless, per Chapter 3, Section 6(b)(i) of the WAQSR, with no visible emissions except for periods not to exceed a total of five (5) minutes during any two (2) consecutive hours as determined by 40 CFR part 60, appendix A, Method 22.

17. Emissions from this facility shall not exceed the major source threshold as defined in Chapter 6, Section 3 of the WAQSR.

18. Jonah Energy LLC shall comply with all applicable requirements of 40 CFR part 63, subpart HH.

19. Jonah Energy LLC shall comply with all applicable requirements of 40 CFR part 60, subpart OOOO.

It must be noted that this approval does not relieve you of your obligation to comply with all applicable county, state, and federal standards, regulations or ordinances. Special attention must be given to Chapter 6, Section 2 of the Wyoming Air Quality Standards and Regulations, which details the requirements for compliance with Condition 3. Any appeal of this permit as a final action of the Department must be made to the Environmental Quality Council within sixty (60) days of permit issuance per Section 16, Chapter I, General Rules of Practice and Procedure, Department of Environmental Quality.

If we may be of further assistance to you, please feel free to contact this office.

Sincerely,

Nancy E. Vehr
Administrator
Air Quality Division

Todd Parfitt
Director
Dept. of Environmental Quality

NV/hb

## EQUIPMENT LIST

- two (2) three-phase HP separators
- two (2) 20.0 MMCFD TEG dehydration units each w/ (3) Kimray Model 20015SC glycol pumps (one spare pump per unit), 0.75 MMBtu/hr reboiler heater, TEG flash tank separator w/ 0.12 MMBtu/hr heater and reboiler overheads condenser
- two (2) 1.5 MMBtu/hr indirect heaters
- two (2) 0.5 MMBtu/hr indirect heaters
- eight (8) 400-bbl condensate tanks
- three (3) 400-bbl produced water tanks
- six (6) pneumatic heat trace circulation pumps
- eighteen (18) low-bleed pneumatic liquid level controllers
- two (2) combination smokeless combustion devices w/ continuous pilot monitoring systems (controls tank emissions, TEG flash tank emissions, non-condensable reboiler and pneumatic pump emissions)

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- eighteen (18) low-bleed pneumatic liquid level controllers
- two (2) combination smokeless combustion devices w/ continuous pilot monitoring systems (controls tank emissions, TEG flash tank emissions, non-condensable reboiler and pneumatic pump emissions)

### Offset Requirements [1]

| Emissions / Production | VOC (TPY) | $NO_X$ (TPY) |
|---|---|---|
| Current Actual Emissions (245 BPD and 30 MMCFD) | 17.1 | 6.8 |
| Baseline Emissions | N/A | N/A |
| | | |
| Difference | +17.1 | +6.8 |
| **Offset Required** | **17.1*1.5 = +25.7** | **6.8*1.1 = +7.5** |

[1] applications received after August 1, 2008; therefore, offsets required are 1.5*VOC and 1.1*NOx

## EMISSIONS SUMMARY

**Stud Horse Butte 84-9 Central Facility**

245 BPD total condensate and 30 MMCFD total gas [1]

**thirteen wells:** Stud Horse Butte 48-09, 61-04, 62-04, 68-04, 77-04, 79-04, 119-04, 126-04, 210-09, 213-09C, 214-09, 215-09B and 215-09C

| SOURCE | EMISSIONS (TPY) [2] | | | |
|---|---|---|---|---|
| | VOC | HAP | $NO_X$ | CO |
| **Dehydration Units** | | | | |
| POTENTIAL | 331.2 | 166.6 | | |
| CONTROLLED | 2.6 | 0.7 | 1.1 | 0.3 |
| **Condensate Tanks** | | | | |
| UNCONTROLLED | 294.2 | 11.4 | | |
| CONTROLLED | 5.9 | 0.2 | 1.8 | 0.4 |
| **Pneumatic Pumps** | | | | |
| UNCONTROLLED | 39.1 | 1.4 | | |
| CONTROLLED | 0.8 | insig | 1.2 | 0.3 |
| | | | | |
| **Process Heaters** | insig | insig | 2.7 | 2.3 |
| **Truck Loading** | 3.8 | 0.2 | | |
| **Fugitives** [3] | 1.7 | 0.2 | | |
| **Pneumatic Liquid Level Controllers** | 2.3 | 0.1 | | |
| | | | | |
| **Total Uncontrolled Facility Emissions** | **672.3** | **179.9** | **2.7** | **2.3** |
| **Total Controlled Facility Emissions** | **17.1** | **1.4** | **6.8** | **3.3** |

[1] daily production reported by the applicant
[2] rounded to the nearest 0.1 ton
[3] EnCana is implementing an EDIM program for reducing fugitive emissions. Based on test results, implementation of the EDIM program results in a 75% reduction in fugitive emissions

# Appendix A

# EDI&M Plan

| JONAH ENERGY LLC<br>Owner: JE EDIM<br>Review cycle: 3 years | JE Enhanced Directed Inspection and Maintenance Procedure | Procedure No: JE JF EDIM 002<br>Revised Date: New Doc./No Revisions<br>Approved By: Charles Cornell<br>Approved Date: 11/10/2015 |
|---|---|---|

## 1.0 Applicability

This EDI&M Procedure applies to all Jonah Energy LLC (Jonah) Environmental Technicians and Contractors on all Jonah worksites and projects.

## 2.0 Scope

This required emission reduction program uses a proven, cost-effective methodology of Enhanced Directed Inspection and Maintenance (EDI&M) to reduce emissions of Volatile Organic Compounds (VOC) and Hazardous Air Pollutants (HAPs) from leaking equipment components at Jonah Energy LLC (Jonah Energy) Central Delivery Points (CDPs) and stand-alone wellhead facility locations in the Jonah Field including the Jonah Infill Development Project Area (JIDPA) and the Normally Pressured Lance (NPL) areas. All existing and new wellhead production facilities located within the boundaries of the JIDPA and NPL are subject to this program. The methodology herein includes a monthly FLIR GF Series camera screening inspection of all Jonah Energy CDP and single well facility locations in Jonah to identify leaking equipment, quantification of identified leaks using HI Flow Samplers, and subsequent documented and verified repair of leaking equipment components. The inspections conducted and the data collected in the program database will replace the previously permitted requirement for vapor collection system compliance certifications. When successfully implemented, the Enhanced EDI&M program is targeted to achieve a significant reduction in actual fugitive VOC emissions released from Jonah Energy CDP facility and single well facility locations into the air shed within Sublette County. This plan provides Environmental Technicians with a safe and consistent manner to inspect Jonah Energy facility locations in the Jonah Field and NPL where there are VOC and HAP emission generating equipment on site.

## 3.0 Definitions

- Contractor- Any company or other entity that contracts with Jonah Energy from time to time to provide ground disturbance services to Jonah Energy field or facility locations.
- Data Base- An electronic Data Base kept on The "W" drive in the Jonah field servers.
- Environmental Technician- An Jonah Energy employee or authorized person under contract to Jonah Energy who Jonah Energy designates to inspect and repair any site owned by Jonah Energy. This representative must fulfill competency requirements
- FLIR Camera- A forward looking infrared gas detecting camera.

## 4.0 Required PPE and equipment

- Tools associated with repairs
- Leak Tags
- The proper personal protective equipment (PPE), which includes hardhat, approved safety glasses, FRC and safety toe boots.

## 5.0 Associated forms and documents

- JSA Form
- Risk Assessment for safety glasses
- EDI&M electronic inspection Form
- GF Series Camera Sensitivity Check Form
- HI Flow Sampler Calibration Form

## 6.0 Procedure

### 6.1 General Purpose

6.1.1 Fugitive gaseous emissions are identified by the EDI&M Inspector with a FLIR GF series infrared camera and using sensory observation during routine monthly facility screening inspections.

6.1.2 Leaking components are assigned a Leak ID number and tagged.

6.1.3 Gaseous leak rates of tagged components are measured using a Hi Flow® Sampler operated by the EDI&M Inspector.

6.1.4 After each leaking component has been identified, tagged, and the leak rate has been measured at a CDP facility, the EDI&M Inspector will, as deemed safe and allowable by the Jonah Energy Jonah Operations Team, make a first attempt at repair of each leaking component. The EDI&M Inspector will assess the effectiveness of each attempt at repair using the FLIR GF series infrared camera. If the repair is confirmed to have been effective, the EDI&M Inspector shall remove the Leak ID Tag from the component and document the leak and subsequent repair in the EDI&M database.

6.1.5 The EDI&M Inspector documents the name of the facility, date of inspection, and description of the leaking component. If the EDI&M Inspector cannot repair the leak, the component shall remain tagged and the EDI&M Inspector shall notify, within 24 hours of inspection, the designated area Coordinator, two Leads and two lease operators assigned to the facility, who will then determine the course of action required to repair the tagged components at the facility. The repair is to be attempted by the end of next business day from notification. If a leak is greater than 5 CFM and the inspector cannot make the repair, immediate notification of the Lease Operator must be made and an attempt at repair must be made within 24 hours. If adverse weather conditions, parts availability or specialized services are required, EDI&M technician will make a note in the Data Base if the repair exceeds 24 hours.

6.1.6 After the Lease Operator or Construction has repaired a tagged component and notified the EDI&M Inspector that the repair has been attempted, the EDI&M Inspector shall return to the facility, within 24 hours of repair notification, to confirm that the attempt at repair has been successful using the FLIR GF series infrared camera, remove the identification tag from the component, and document the repair and confirmation in the EDI&M database. If the EDI&M Inspector determines that the repair of a tagged component has not been successful, the component shall remain tagged and the EDI&M Inspector shall notify the Coordinator, both leads and both lease operators for that area within 24 hours. They will determine appropriate further corrective actions to promote the success of further attempts at repair of the tagged component. This process will continue until the repair is confirmed successful.

6.1.7 The EDI&M Inspector shall schedule and inspect each facility in their area monthly to identify leaking components in gas/vapor and light liquid service.

6.1.8 The designated EDI&M Inspector shall be responsible for routinely notifying the appropriate area Coordinator, two Leads and two lease operators that leaking components requiring repair have been identified at specific facilities.

6.1.9 The EDI&M Inspector shall transfer all EDI&M Inspection data into the EDI&M database on a routine daily basis.

6.1.10 The EDI&M Inspector shall be responsible for maintaining inspection equipment, ordering equipment and supplies for the Hi Flow sampler, and for tracking expiration dates and pressures of calibration gases.

## 6.2 ROUTINE FACILITY INSPECTION PROCEDURE DETAILS

6.2.1 The EDI&M Inspector shall plan his/her day.

6.2.1.1 Determine which locations will be inspected and the best order and route to efficiently reach them

6.2.2 The Inspector shall assemble all equipment, parts and tools needed for inspection and repair. Including replacement gaskets, rags for gasket maintenance, wrenches, etc…

6.2.3 Drive to first location.

6.2.3.1 Driving is the most dangerous aspect of inspections. Do not exceed the posted speed limit within the Jonah field. Drive defensively at all times.

6.2.4 Read the JSA for using the FLIR camera on a location.

6.2.4.1 Note any new hazards on the JSA. Look over the location to see if there are any special circumstances.

6.2.5 Protect the camera.

6.2.5.1 Use the safety strap around your neck.
6.2.5.2 Use the lens cover when the camera is not being used.
6.2.5.3 Place the camera and case out of sight when it is left in a vehicle and lock the vehicle.
6.2.5.4 Lock up the camera in the storage room when it is left at office.
6.2.5.5 Remember that the camera costs about $92,000.00.

6.2.6 Perform a walkthrough of units and area around the tank battery, well heads and manifolds to check for a gas concentration that is above the Lower Explosive Limit.

6.2.6.1 The Inspector shall perform a pre-sweep of the location to look for any gas concentration above the LEL.

6.2.6.2 Ensure the LEL monitor is on your upper body. It must be on the outermost layer of clothing. Do not cover it with anything.

6.2.6.3 Use a good grounding routine before touching the doors of any unit. Stand on the grating at the unit and then touch bare metal with a bare hand to eliminate static. This needs to be done each time you open the door to a unit or walk into a unit.

6.2.6.4 The Inspector shall open both doors of all combination units on location before walking into units. Check the units last, after the entire location has been checked for LEL, giving the unit time to air out after opening the doors if LEL is present.

6.2.6.5 The Inspector shall walk on all sides of the tank battery inspecting every tank from the top to the bottom, looking for missing plugs, bolts, cracked welds, liquid leaks or spills, or anything out of the ordinary.

6.2.6.6 Ensure well head huts have the doors open and are given time to air out.

6.2.6.7 Leave the area immediately if you are in a LEL atmosphere. If doing repairs on hatches turn the LEL monitor off so that the LEL sensor does not become contaminated. LEL must be turned back on after hatch is closed.

6.2.7 Record on the electronic inspection sheet the Date, Time, Facility, Well, Inspector and the result of the Safety/LEL inspection.

6.2.8 Make weather observations and take weather measurements with the anemometer.

6.2.8.1 Measure temperature, wind speed, and humidity and note the conditions.

6.2.8.1.1 If wind speed exceeds 12 miles per hour (mph), it is determined to be too windy to conduct and effective survey and an inspection will not be conducted.

6.2.8.2 Enter the weather measurements into the electronic inspection form.

6.2.9 Infrared Camera inspection of the location

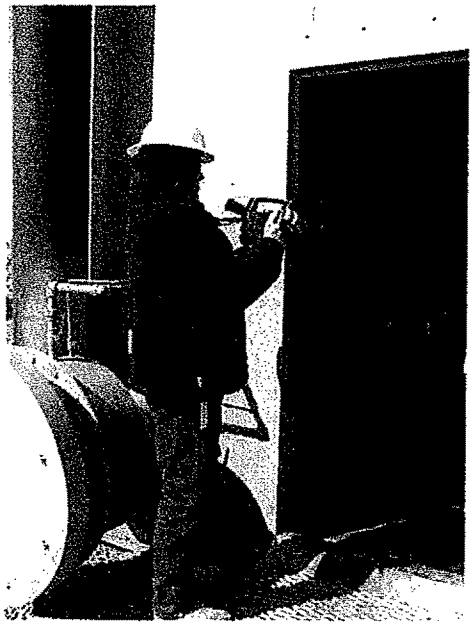
6.2.9.1 Make sure the LEL monitor is on your upper body. It has to be on the outermost clothing. Do not cover it with anything.

6.2.9.2 The EDI&M Inspector shall operate the camera in AUTO mode so that the contrast between the component and background is optimized, thereby making the fugitive emission appear more prominent in the camera's view. If the camera's AUTO mode provides poor visibility and contrast, the EDI&M Inspector may use the MANUAL mode and fine tune the camera settings by adjusting the camera's GAIN and LEVEL controls.

6.2.9.3 Do not rush and miss a leak. Emissions at any rate will be documented and the component will be tagged for repair. Once a leak is identified, record it leaking for 10 to 20 seconds on the video.

6.2.9.4 Start at the tanks. Record the inspection of hatches, VOC piping, pressure relief valves and the equalizer lines.

6.2.9.4.1 The Camera should not be at the top of the tanks when the hatches are opened to check for gasket integrity.



6.2.9.7 Walk over to where the VOC 4" line comes out of the ground at the combustor. Record with the camera while inspecting the line and all piping connected to the combustor.

6.2.9.8 Walk over to the units and use the camera to inspect the unit inside. If at any time the LEL monitor beeps, immediately exit the unit.

6.2.9.8.1 The following is a list of the controllers that are designed to vent and are not subject to this program if venting normally.

6.2.9.8.1.1 Separator dump controllers

6.2.9.8.1.2 Flash separator dump controllers

6.2.9.8.1.3 High Low controller in unit

6.2.9.8.1.4 High Low controller in well head hut

6.2.9.8.1.5 BTEX pot dump controller and 3pg valve

6.2.9.8.1.6 SCADA valve controllers I/P and Pulse

6.2.9.8.1.7 SCADA well head valve controllers I/P and solenoid

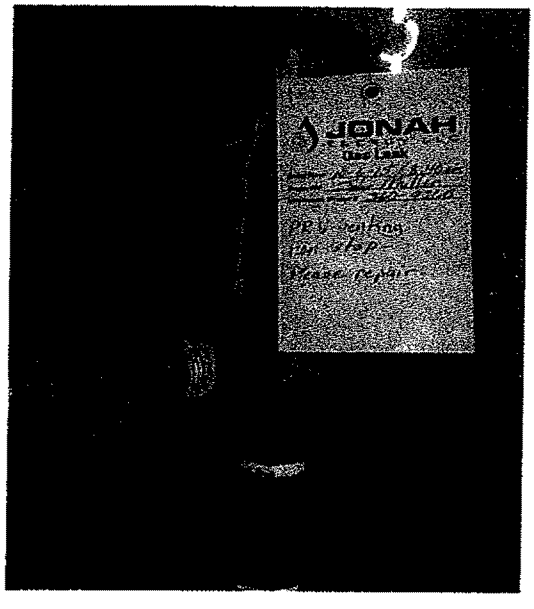
6.2.9.8.1.8 Big Joe, Little Joe and all other small regulators

6.2.9.9 The wellhead huts can be inspected with the camera from outside the hut on most occasions.

6.2.9.9.1 The well head huts should be opened and allowed to air out before entering or inspecting with the Camera.

6.2.9.10 After a Component with fugitive emissions has been identified, the EDI&M Inspector shall place identifying information upon a weather resistant fugitive emission Tag and attach it to the Component with fugitive emissions using S.S. wire or a zip tie in a manner that will not impede day to day operation of the component. Fugitive emissions will be identified with a 19 or more digit code. The first digits will be the location name. The next 12 digits will be the date and the time. The last will be the leak # found at that location. i.e.: For the second leak found at SHB 13-26 on March 20, 2010 at 1:00 pm, the code would be SHB1326032020101330-2.

6.2.9.10.1 Tag numbers are generated on the electronic inspection forms.



6.2.9.14 If the Inspector can make the 1st attempt at repair or the lease operator is on site and available during the inspection and a Component with fugitive emissions is identified, the first attempt at repair shall be made at that time.

6.2.9.15 When a first attempt at repair is made on site during inspection the EDI&M Inspector shall re-inspect the component with the camera to confirm that the first attempt at repair has been successful. If confirming a repair on the tank vapor collection system, take a video confirmation that the repaired component is not leaking and also confirm that the other components on the tank vapor collection system are not leaking. The EDI&M Inspector shall document the fugitive emission and repair in accordance with the normal recordkeeping procedures presented herein and remove the leak tag.

6.2.9.16 If no first attempt is possible or the first attempt is unsuccessful, the fugitive emissions will be reported to the area Coordinator, two Leads and two lease operators within 24 hours of the inspection.

6.2.10 *If the leak is greater than 5 CFM or the leak rate is too high to measure and the* inspector *cannot make the repair, call the Lease Operator and EHS On-Call, then call the Area Lead, if the Lead is unavailable call any Lead, if no Lead is available, call the Area Coordinator. An attempt at repair must be made within 24 hours. Repair provisions are described in Section 6.3 of this document.*

6.2.10.1 Complete all data entry and documentation before leaving the location.

## Electronic Inspection Input Form

| General | | | Weather | | Pumper |
|---|---|---|---|---|---|
| Facility | Sled Horse Butte 13-26 | | Condition | Cloudy | Cole Peterson |
| Well | | | Temp. ( F) | 56 | Ryan McCoy |
| Date | 05/19/2010 | | Wind (mph) | 6 | |
| Time | 10:05 | | Humidity (%) | 54 | Construction |
| Inspector | Glenn Whicker | | Barometric Press. (in Hg) | 23.5 | |
| Safety | | | | | |
| Sensory and LEL Inpection | Yes | | | | |
| Comments | | | | | |
| Other Comments | | | | | |

| | Issue | | | Tag No. | |
|---|---|---|---|---|---|
| | Leak | | | SHB132605192010100S-1 | |
| Location | Type | Service | Rate (cfm/ppm) | Video File Id | Notes |
| Tank | LP Connector | Waste Gas | 0.5 | SHB132605192010100S-1A | Hammer union on top of 1st water tank from stake |
| Repaired | Date | Time | Time Read (min) | Cost of Repair | Notes |
| No | | | | | |

| | Issue | | | Tag No. | |
|---|---|---|---|---|---|
| | Leak | | | SHB132605192010100S-2 | |
| Location | Type | Service | Rate (cfm/ppm) | Video File Id | Notes |
| Separator | LP Connector | Field Gas | 0.15 | SHB132605192010100S-2A | fitting nut loose on oil dump level controller |
| Repaired | Date | Time | Time Read (min) | Cost of Repair | Notes |
| Yes | 05/19/2010 | 10:55 | 2 | 0 | 1st attempt successful |
| | | | | | vidID SHB132605192010100S-2B |

6.2.10.2 At the end of the day's inspections the Inspector will return to the office and upload all electronic inspection forms into the Access Database and notify the appropriate parties about the repairs needed. All inspection video will be properly named and saved in the video storage files.

6.2.10.3 Initial inspection videos that cover the entire location shall be identified with an 18 or more digit code. The first digits will be the location name. The next 12 digits will be the date and the time. Then a letter designation for CDP Facility (F) or Wellhead (W) i.e.: For the initial inspection video at SHB 13-26 CDP on March 20, 2010 at 1:00 pm, the video code would be SHB1326032020101330F. In the event that more than one video file is created for the inspection the second video for that inspection would be called SHB1326032020101330Fa and the third would be SHB1326032020101330Fb.

6.2.10.4 For leak repair confirmation videos, use the leak ID # for the video name. If the video confirms the leak was repaired add "FINAL" to the end, i.e.: For the confirmation inspection video for the second leak found at SHB 13-26 on March 20, 2010 at 1:00 pm, the video code would be SHB1326032020101330F-2FINAL. If the confirmation video shows that the leak was not repaired the video would be named SHB1326032020101330F-2. The second confirmation video that shows that the leak was not repaired would be named SHB1326032020101330F-2a. The second confirmation video that shows that the leak was not repaired would be named SHB1326032020101330F-2b.

## 6.3 REPAIR

6.3.1 Repair any and all things that you can before leaving location. Repairs have to be completed that the inspector feels comfortable repairing. If the repair is on the high pressure system, the inspector cannot attempt repair. If an inspector cannot find the shut off valve before attempt is made or does not have experience with repairing a component do not attempt first repair. Call the lease operator and let them teach you to make repair. If you are not comfortable in your skills to repair, DO NOT ATTEMPT REPAIR.

6.3.2 If the Lease Operator is not present during the inspection and the EDI&M Inspector cannot make the repair, the EDI&M Inspector will send an email work order of all the repairs needed on the Lease Operator's route within 24 hours of inspection.

6.3.3 First attempt at repair should be made within 24 hours of notification if the lease operator can make the attempt. If a construction crew is required for the repair, it shall be attempted by the end of the next day of business from notification. If the repair is not completed by the end of next business day a reason must be entered in the database.

6.3.4 Include the lease operator, the lead operators and the production coordinator for each CDP in the email.

6.3.5 Title the emails "Repairs". The emails must be clear and to the point. The Inspector must name the valves and or other components with fugitive emissions so that the lease operators know where to look. Do not generalize anything.

6.3.6 Ask the lease operator to email you back upon completion of the work order with the cost of repair.

6.3.7 Results of inspections and repairs will be kept for a period of five (5) years, and made available to WDEQ personnel upon request.

## 6.4 CONFIRMATION

6.4.1 The Inspector shall return to the location of a repaired component to conduct a repair confirmation.

6.4.1.1 The Inspector will execute all safety procedures explained in the inspection portion of this plan before conducting the repair confirmation.

6.4.1.2 The Inspector will use the FLIR camera to record the repaired component and verify the fugitive emission has been fixed. If confirming a repair on the tank vapor collection system, take a minimum of a ten second video confirmation that the repaired component is not leaking and also confirm that the other components on the tank vapor collection system are not leaking.

6.4.1.3 If the component has been repaired and no emissions are visible, the leak tag will be removed.

6.4.1.4 If the EDI&M Inspector determines that the repair of a tagged component has not been successful, the component shall remain tagged and the EDI&M Inspector shall notify the Coordinator, both leads and both lease operators for that area within 24 hours. They will determine appropriate further corrective actions to promote the success of further attempts at repair of the tagged component. Second attempts at repair that take longer than 24 hours to repair will be noted in the database with a reason for delay. This process will continue until the repair is confirmed successful.

6.4.2 The inspector will update all confirmed repairs in the Access Database.

## 7.0 Goals, objectives, and performance measures

The EDI&M plan is designed to reduce fugitive VOC and HAP emissions to the atmosphere, while allowing Jonah Energy to continue to have air permits be issued with a 75% reduction in fugitive emissions as a result of having an EDI&M plan implemented.

## 8.0 Roles and responsibilities

8.1 Environmental Coordinator

- Follow this SOP

8.2 EDI&M Inspector

- Follow this SOP

## 9.0 Training

All EDI&M Inspectors will be trained in conducting optical gas imaging (OGI) surveys prior to conducting inspections. Periodic trainings will be conducted as new facilities or operational practices warrant.

## 10.0 Document review and audit trail

| JONAH ENERGY STANDARD OPERATING PROCEDURE FOR CONTRACTOR MANAGEMENT<br>DOCUMENT REVISION HISTORY | | |
|---|---|---|
| **Revision Date** | **Nature of Revision** | **Document Review Participants** |
| **October 2015** | **Update EDI&M Plan to incorporate administrative changes from previous Encana Plan** | **Glenn Whicker, Howard Dieter, Chuck Cornell** |
| | | |
| | | |
| | | |

## 11.0 Acknowledgement Form

Employee signature page document training and also Supervisor signature showing competency.

I have read, understand and agree to abide by the **Jonah Energy Enhanced Directed Inspection and Maintenance (EDI&M) Plan for the Jonah Field** policy

**Jonah Employee**

Name Cesar Diaz

Position Environmental Field Technician

**Jonah Supervisor**

Signature

Date 10-27-15

(Sign and Date when Proficiency has been displayed)

## 11.0 Acknowledgement Form

Employee signature page document training and also Supervisor signature showing competency.

I have read, understand and agree to abide by the **Jonah Energy Enhanced Directed Inspection and Maintenance (EDI&M) Plan for the Jonah Field** policy

**Jonah Employee**

Name _____

Position _____

**Jonah Supervisor**

Signature _____

Date 10-27-15

(Sign and Date when Proficiency has been displayed)

## 11.0 Acknowledgement Form

Employee signature page document training and also Supervisor signature showing competency.

I have read, understand and agree to abide by the **Jonah Energy Enhanced Directed Inspection and Maintenance (EDI&M) Plan for the Jonah Field** policy

**Jonah Employee**

Name DAVID KINNAMON

Position Field Tech

**Jonah Supervisor**

Signature

Date 10-27-15

(Sign and Date when Proficiency has been displayed)

## 11.0 Acknowledgement Form

Employee signature page document training and also Supervisor signature showing competency.

I have read, understand and agree to abide by the **Jonah Energy Enhanced Directed Inspection and Maintenance (EDI&M) Plan for the Jonah Field** policy

**Jonah Employee**

Name John Mullen / John Mullen

Position Environmental Field Tech.

**Jonah Supervisor**

Signature

Date 10-27-15

(Sign and Date when Proficiency has been displayed)